

C1 1154

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER A 516063

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

ST/CO USE ONLY DATE Received

DATE WELL COMPLETED

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL" No. 95-0230

OWNER, STREET OR RFD, SUBDIVISION, SECTION, LOT, TOWN

WELL LOG table with columns for DESCRIPTION, FEET (FROM, TO), and check if water bearing. Includes handwritten entries for Sand and Gray Mica Rock.

GROUTING RECORD form with fields for WELLS HAS BEEN GROUTED, TYPE OF GROUTING MATERIAL, CEMENT, BENTONITE CLAY, NO. OF BAGS, NO. OF POUNDS, GALLONS OF WATER, DEPTH OF GROUT SEAL.

CASING RECORD form with fields for casing types insert appropriate code below, MAIN CASING TYPE, Nominal diameter top (main) casing, Total depth of main casing.

OTHER CASING (if used) table with columns for diameter inch and depth (feet) from to.

SCREEN RECORD form with fields for screen type or open hole, insert appropriate code below, DEPTH (nearest ft.).

PUMPING TEST form with fields for HOURS PUMPED, PUMPING RATE, METHOD USED TO MEASURE PUMPING RATE, WATER LEVEL, BEFORE PUMPING, WHEN PUMPING, TYPE OF PUMP USED.

PUMP INSTALLED form with fields for DRILLER INSTALLED PUMP, IF DRILLER INSTALLS PUMP, TYPE OF PUMP INSTALLED, CAPACITY, GALLONS PER MINUTE, PUMP HORSE POWER, PUMP COLUMN LENGTH, CASING HEIGHT, LAND SURFACE.

NUMBER OF UNSUCCESSFUL WELLS, WELL HYDROFRACTURED fields.

CIRCLE APPROPRIATE LETTER A, E, P fields for well status.

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT...

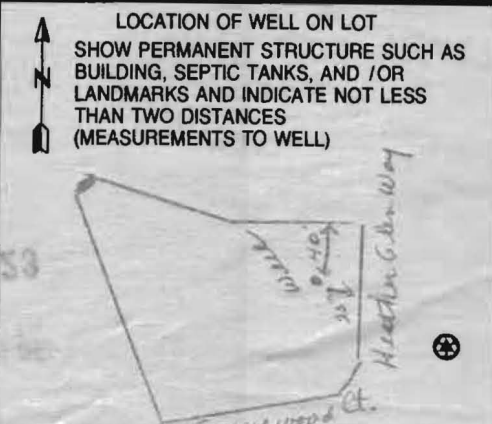
DRILLERS LIC. NO., DRILLERS SIGNATURE, LIC. NO. fields.

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

Table with columns for casing depth (nearest ft.) and diameter of screen (nearest inch).

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) T, W, Q, TELESCOPE CASING, LOG INDICATOR, OTHER DATA.



B 1 1459

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL 523944 please type

STATE PERMIT NUMBER HO-95-0230 fill in this form completely

Date Received (APA) 01 20 06

OWNER INFORMATION

Horton R. D. Last Name Owner First Name 1370 Piccard Drive Street or RFD Rockville Md. 20850 Town State Zip

B 3 LOCATION OF WELL

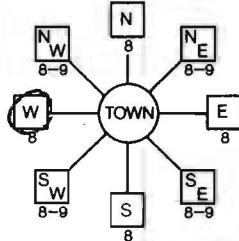
Howard COUNTY 21 Sunnyside Grove SUBDIVISION 42 SECTION 44 46 LOT 8 on F-06-72 Clarksville NEAREST TOWN 71 MILES FROM TOWN (enter 0 if in town) 1/2 M I 73 76 77 78

DRILLER INFORMATION

Joseph L. Mayne M S D 024 Driller's Name License No. Joseph L. Mayne Well Drilling Firm Name 5512 Ridge Rd Mt. Airy Md 21971 Address Joseph L. Mayne 1-6-06 Signature Date

B 4

1 2 DIRECTION OF WELL FROM TOWN (CIRCLE BOX) Heather Glen Way NEAR WHAT ROAD 30 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH N 32 E WEST S EAST SOUTH 34 25 37 DISTANCE FROM ROAD FT ENTER FT OR MI 38 39 TAX MAP: 34 BLK: 17 PARCEL 77



B 2 WELL INFORMATION APPROX. PUMPING RATE 5 GAL. PER MIN. 8 12 AVERAGE DAILY QUANTITY NEEDED 500 GAL. PER DAY 14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
I INDUSTRIAL, COMMERCIAL, DEWATERING
P PUBLIC WATER SUPPLY WELL
T TEST, OBSERVATION, MONITORING
G GEO-THERMAL

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

HOWARD COUNTY NAME 13 COUNTY NO. A516063 STATE SIGNATURE INSERT S DATE ISSUED 2/8/06 CO SIGNATURE EXP. DATE 2/09/07 NORTH GRID 497 000 EAST GRID 814 000

APPROXIMATE DEPTH OF WELL 300 FEET 24 28

APPROXIMATE DIAMETER OF WELL 6 INCH NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary) CABLE REVerse-ROTary DRive-POINT other

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

N THIS WELL WILL NOT REPLACE AN EXISTING WELL
Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
D THIS WELL WILL DEEPEM AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 52

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

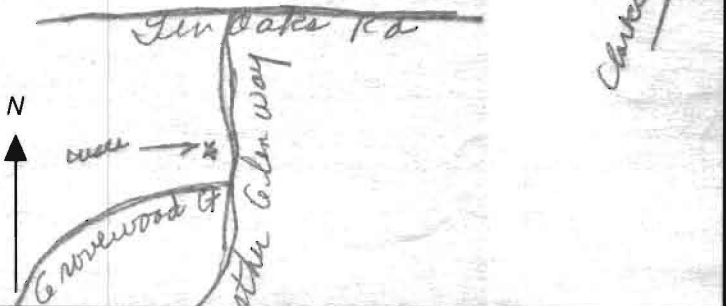
SOURCES OF DRILLING WATER

- 1. well
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 8184 N 4987

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



Handwritten notes: 'Tested for Radium 8-30', 'yield 3/25/06', 'Not tested for VOC', 'Not tested for Radium'.

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROP. PERMIT NUMBER HO2006G003(01) PERMIT No. HO-95-0230

SPECIAL CONDITIONS NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED - This well MUST BE TESTED FOR RADIUM & VOC'S @ yield test

**HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
WELL & SEPTIC PROGRAM
TEL: (410)313-1771 FAX: (410)313-2648**

Information Form for the Installation of the Well Pump, Pitless Adapter, and Supply Piping

NOTE: The installer is responsible for requesting an inspection prior to 9 am on the day of the desired inspection. No work is to be covered until approved by the Health Department. All installations must comply with the National Standard Plumbing Code (NSPC, as amended locally) and COMAR 26.04.04 (MD Well Construction Regulations). Submission of a complete form is required prior to Use and Occupancy approval.

Company Name: R & G WATER SYSTEMS, INC. Telephone #: 410-239-0700
Address: 4322 OPALS CHOICE DRIVE
MANCHESTER, MD-21102

(Must circle one) Licensed Plumber Licensed Well Driller Licensed Well Pump Installer
License # and name of individual responsible for the field installation:
Name (Print): RILEY L. ROOS, SR. License# PI0141

***A licensed individual must perform the actual installation. Apprentices must be under the supervision of a licensed journeyman or master plumber, pump installer or well driller. Licenses may be subjected to field verification. Unlicensed individuals may be reported to the appropriate licensing agency.**

Name of Property Owner: COMPASS HOMES Telephone #: 301-596-7280
Subdivision: _____ Lot #: B Well Tag #: HO-25-~~227~~ 0230

Site Address: 6246 HEATHER GLEN WAY
(6246) CLARKSVILLE MD-21029

<u>Submersible Pump Data</u>	<u>Pitless Adapter</u>	<u>Well Cap and Electric Conduit</u>
Make: <u>GRUNDOS</u>	Make: <u>HARWAY</u>	Two piece watertight cap: <input checked="" type="checkbox"/>
Model #: <u>155SE 07-180</u>	Model#: <u>RT800</u>	Screened, vented well cap: <input checked="" type="checkbox"/>
Pump Capacity <u>15</u> GPM	Depth: <u>46"</u> (36" min)	Cap secured to casing: <input checked="" type="checkbox"/>
Well Yield: <u>12</u> GPM	NSF/WSC approved: <input checked="" type="checkbox"/>	Conduit min 18" B.G.: <input checked="" type="checkbox"/>
Depth of well encountered at time of pump installation: <u>210'</u> (feet)		Conduit secured to well cap: <input checked="" type="checkbox"/>

If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4
Torque arrestors, Cable guards, or other acceptable method used- Must circle one
Safety rope, if used, attached to brass rope adapter or other acceptable method inside of well casing

<u>Piping to house</u>	<u>House Connection</u>
Type: <u>1" Pvc</u>	PVC sleeve to undisturbed soil at wall penetration: <input checked="" type="checkbox"/>
PSI: <u>160</u> (160 psi min)	Length of sleeve (5' minimum from foundation): <u>10'</u>
Depth of supply line: <u>44"</u> (36" min)	Sleeve sealed properly: <u>FERMCUS</u>

The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields, and sewage reserve area. If this cannot be accomplished, contact this office for approval prior to installation.

Signature of company representative responsible for installation: Riley L. Roos, Sr. date: 3/28/11

For Health Department Use Only - Not to be completed by Installer

Date Insp. Requested: _____ Date Insp. Approved: 3/25/11 Inspector: KW
Inspection Data: Pitless adapter watertight & water supply line at least 36" below grade
Two piece cap installed and attached to casing securely
Elec. conduit extends at least 18" below grade/attached to cap properly
Safety rope not outside of well cap/casing
Correct well tag attached properly and casing 8" above finished grade
Water supply line sleeved adequately at house connection
Adequate grout observed below pitless adapter

**HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
WELL & SEPTIC PROGRAM
TEL: (410)313-1771 FAX: (410)313-2648**

Information Form for the Installation of the Well Pump, Pitless Adapter, and Supply Piping

NOTE: The installer is responsible for requesting an inspection prior to 9 am on the day of the desired inspection. No work is to be covered until approved by the Health Department. All installations must comply with the National Standard Plumbing Code (NSPC, as amended locally) and COMAR 26.04.04 (MD Well Construction Regulations). Submission of a complete form is required prior to Use and Occupancy approval.

Company Name: R+G Water Systems, Inc. Telephone #: 410-239-0700
Address: 4322 OPALS CHOTLE DRIVE
MANCHESTER, MD 21102

(Must circle one) Licensed Plumber Licensed Well Driller Licensed Well Pump Installer
License # and name of individual responsible for the field installation:
Name (Print): Rickey L. Roos, Sr. License# PI 0141

***A licensed individual must perform the actual installation. Apprentices must be under the supervision of a licensed journeyman or master plumber, pump installer or well driller. Licenses may be subjected to field verification. Unlicensed individuals may be reported to the appropriate licensing agency.**

Name of Property Owner: Compass Homes Telephone #: 301-596-7280
Subdivision: _____ Lot #: 8 Well Tag #: HO-95-0230
Site Address: 6246 Heather Glenn Way
Clarksville, MD 21029

<u>Submersible Pump Data</u>	<u>Pitless Adapter</u>	<u>Well Cap and Electric Conduit</u>
Make: <u>Grundfos</u>	Make: <u>Harvard</u>	Two piece watertight cap: <input checked="" type="checkbox"/>
Model #: <u>15SQE07-180</u>	Model#: <u>PT600</u>	Screened, vented well cap: <input checked="" type="checkbox"/>
Pump Capacity <u>15</u> GPM	Depth: <u>46"</u> (36" min)	Cap secured to casing: <input checked="" type="checkbox"/>
Well Yield: <u>12</u> GPM	NSF/WSC approved: <input checked="" type="checkbox"/>	Conduit min 18" B.G.: <input checked="" type="checkbox"/>
Depth of well encountered at time of pump installation: <u>210'</u> (feet)		Conduit secured to well cap: <input checked="" type="checkbox"/>

If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4
Torque arrestors, Cable guards, or other acceptable method used- Must circle one
Safety rope, if used, attached to brass rope adapter or other acceptable method inside of well casing

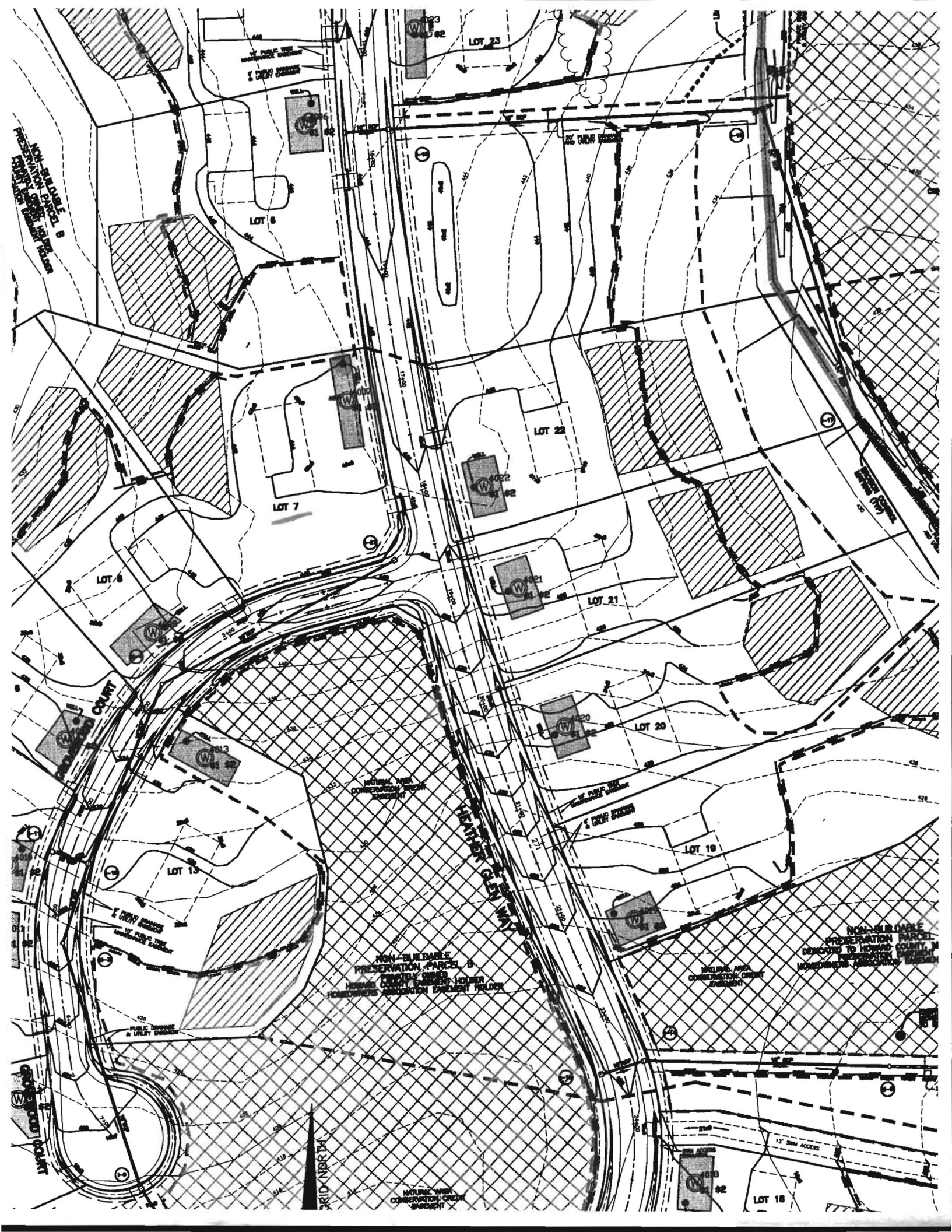
<u>Piping to house</u>	<u>House Connection</u>
Type: <u>1" Poly</u>	PVC sleeve to undisturbed soil at wall penetration: <input checked="" type="checkbox"/>
PSI: <u>160</u> (160 psi min)	Length of sleeve (5' minimum from foundation): <u>10'</u>
Depth of supply line: <u>44"</u> (36" min)	Sleeve sealed properly: <u>Feraco's</u>

The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields, and sewage reserve area. **If this cannot be accomplished, contact this office for approval prior to installation.**

Signature of company representative responsible for installation: Rickey L. Roos, Sr. date: 3/28/11

For Health Department Use Only - Not to be completed by installer

Date Insp. Requested: _____ Date Insp. Approved: _____ Inspector: _____
Inspection Data: Pitless adapter watertight & water supply line at least 36" below grade _____
Two piece cap installed and attached to casing securely _____
Elec. conduit extends at least 18" below grade/attached to cap properly _____
Safety rope not outside of well cap/casing _____
Correct well tag attached properly and casing 8" above finished grade _____
Water supply line sleeved adequately at house connection _____
Adequate grout observed below pitless adapter _____



NON-BUILDABLE PRESERVATION PARCEL

LOT 23

LOT 6

LOT 22

LOT 7

LOT 21

LOT 8

LOT 20

LOT 13

LOT 19

NON-BUILDABLE PRESERVATION PARCEL
HONOLULU COUNTY ENGINEERING DIVISION
HONOLULU PLANNING DEPARTMENT

NON-BUILDABLE PRESERVATION PARCEL
DESIGNED BY HONOLULU COUNTY ENGINEERING DIVISION
HONOLULU PLANNING DEPARTMENT

NATURAL AREA CONSERVATION CREDIT

LOT 18

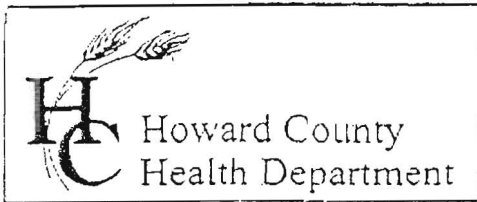
WOOD COUNTY

COUNTY

WEATHERS CREEK

BRIDGEBURN

12' SWM ACCESS



3525 H Ellicott Mills Drive, Ellicott City, MD 21043
(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

Penny E. Borenstein, M.D., M.P.H., Health Officer

TO ALL INTERESTED PARTIES

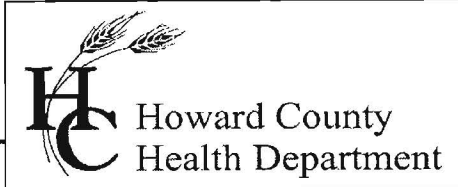
When submitting a well permit application for a proposed well for new construction, please indicate one of the following:

- The well site has been staked by Benchmark Engineering
(professional land surveyor or company employing professional land surveyors)
on 12-14-05 (date) and does not require a site inspection.
- The well driller, builder or property owner will call the Health Department to schedule a time to meet in the field to verify the proposed well site location.

This sheet, along with two copies of an acceptable well site plan, must be attached to the green well permit application.

Revised 6/10/03

*33 Lots for D. R. Horton
Surnbury Grove*



Bureau of Environmental Health
7178 Gateway Drive Columbia, MD 21046
(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
Website: www.hchealth.org

Peter Beilenson, M.D., M.P.H., Health Officer

March 29, 2011

Homeowner
6246 Heather Glen Way
Clarksville, MD 21029

RE: The Preserve at Clarksville, Lot 8
6246 Heather Glen Way
BP #: B10000504
Well Tag: HO-95-0230

Dear Sir:

This is to advise you that the septic system for the above referenced property has been installed and inspected. **Final approval of the septic system was granted on 10/25/2010. Final approval of the well line connection to the dwelling was approved on 03/25/2011.**

The water sample results indicate that the water samples submitted for testing were free of coliform and fecal coliform bacteria at the time of sampling and are bacteriologically safe for drinking. The water sample results were found to be in compliance with COMAR water quality standards.

Gross Alpha and Beta samples were also collected on 03/14/2011. Results showed a post-treated Gross Alpha level of **1.0 +- 0.7 pCi/L** and **Gross Beta** level of **<1.7 +- 1.1 pCi/L**. The **Gross Alpha** was below the maximum contaminant level (MCL) of 15 pCi/L, while the Gross Beta was below the MCL of 50pCi/L. Your Reverse Osmosis (R.O.) water conditioning unit appears to be working as it should to effectively treat the high levels of Radium in your water supply.

Enclosed with this certificate, is a copy of the septic permit and the as-built along with important information regarding the use and maintenance of your septic system. Please read through carefully and thoroughly. Any questions regarding your well and/or septic, please call this office for guidance 410-313-1771.

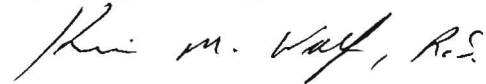
INTERIM CERTIFICATE OF POTABILITY

This certifies that the initial sampling requirements of COMAR 26.04.04 "Well Regulations" have been met for the water supply system installed under well permit #HO-95-0230. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies. Based upon satisfactory investigation and evaluation, the Howard County Health Department as authorized by the Maryland Department of the Environment accepts this well system as required by COMAR 26.04.04.

This certificate may become final upon completion of the second bacteriological test, which is to be taken by the county health department within six months of receipt of this letter. **Please contact (410) 313-1773 to schedule a final water sample appointment. Currently, there is no charge for this final sampling.**

Date of Water Samples: 03/14/2011
Date of Radium Samples: 03/14/2011
Date of Well Completion: 03/15/2006

Approving Authority,



Kevin M. Wolf, R.E.H.S./R.S.
Environmental Sanitarian
Well & Septic Program

cc: Building Inspector's Office
Community Hygiene Program
File



TRACE LABORATORIES, INC
 5 North Park Drive
 Hunt Valley, MD 21030 USA
 Telephone: 410/584-9099 / Fax: 410/584-9117
 Website: www.tracelabs.com / Email: info@tracelabs.com

Maryland State Certified Laboratory #318

CERTIFICATE OF ANALYSIS

Requester: Amy Ferrer
 Compass Homes
 6206 Heather Glen Way
 Clarksville, Maryland 21029

S/O Number: 80682 *Amended*

Report Date: March 30, 2011

Property Sampled: 6246 Heather Glen Way, 21029
Sample Location: Reverse Osmosis (R/O) Tap
Residual Chlorine: <0.1 mg/L

Building Permit #: B10000504
Sampler ID #: 9813AM
Samples Iced: Yes

County: Howard
Map: 34

Subdivision: Preserve at Clarksville
Parcel: 77
Lot #: 8

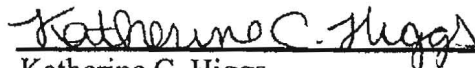
Date/Time Collected in Field: March 14, 2011 @ 12:10 pm
Date/Time Received in Lab: March 14, 2011 @ 3:15 pm

Well Tag #: HO-95-0229
Well Condition: 2-Piece Cap, Satisfactory

Water Treatment/Conditioning: Sediment Filter (No Canister), Reverse Osmosis (R/O)

PARAMETER	METHOD	DETECTION LIMIT	MCL*	RESULT	ACCEPTABILITY
Gross Alpha	EPA 900.0	0.9 pCi/L	15 pCi/L	1.0 ± 0.7 pCi/L	Acceptable
Gross Beta	EPA 900.0	1.7 pCi/L	50 pCi/L	<1.7 ± 1.1 pCi/L	Acceptable

*Note: There are no established limits set forth by the EPA for radionuclide particles in private well water. The limits for public water are instead provided as MCLs in this report. The acceptability of this sample is based on these requirements.


 Katherine C. Higgs
 Administrative Assistant



TRACE LABORATORIES, INC
 5 North Park Drive
 Hunt Valley, MD 21030 USA
 Telephone: 410/584-9099 / Fax: 410/584-9117
 Website: www.tracelabs.com / Email: info@tracelabs.com

Maryland State Certified Laboratory #318

CERTIFICATE OF ANALYSIS

Requester: Amy Ferrer
S/O Number: 80682 Amended

Compass Homes
 6206 Heather Glen Way
 Clarksville, Maryland 21029

Report Date: March 30, 2011

Property Sampled: 6246 Heather Glen Way, 21029
Sample Location: Pressure Tank Tap
Residual Chlorine: <0.1 mg/L
Building Permit #: B10000504
Sampler ID #: 9813AM
Samples Iced: Yes

County: Howard
Map: 34
Subdivision: Preserve at Clarksville
Parcel: 77
Lot #: 8

Date/Time Collected in Field: March 14, 2011 @ 12:10 pm
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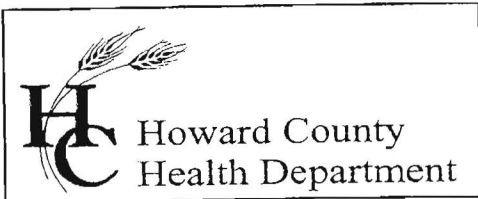
Well Tag #: HO-95-0229
Well Condition: 2-Piece Cap, Satisfactory

Water Treatment/Conditioning: Sediment Filter (No Canister), Reverse Osmosis (R/O)

PARAMETER	METHOD	MCL/*SMCL	RESULT	PASS/FAIL
Total Coliform	SM 9223B	Absent	Absent	Pass
E. coli	SM 9223B	Absent	Absent	Pass
Nitrate	SM 4500D	10 mg/L as N	6.1 mg/L as N	Pass
Turbidity	EPA 180.1	10 NTU	8.8 NTU	Pass
pH	EPA 150.1	*6.5-8.5 Units	6.6 Units	***
Sand		Negative	Negative	

Katherine C. Higgs
 Katherine C. Higgs
 Administrative Assistant

MCL: Maximum Contamination Level, an enforceable level established by the EPA
 *SMCL: Secondary Maximum Contamination Level, a level recommended by the EPA
 ***A non-enforceable parameter that may cause cosmetic effects or aesthetic effects (such as taste, color or odor) in drinking water.



Bureau of Environmental Health
7178 Columbia Gateway Drive, Columbia, MD 21046
(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

Penny E. Borenstein, M.D., M.P.H., Health Officer

November 21, 2005

RE:

To Whom It May Concern:

Previous findings from a pilot study conducted by Maryland Geological Survey and Maryland Department of the Environment (MDE) have found elevated levels of naturally occurring radioactive elements in groundwater from and underground rock formation, the Baltimore Gneiss. As a result of this study, we have verified that your subdivision is located within the Baltimore Gneiss testing area. We are in the process of notifying existing properties of this study, plus developers building developments within this formation.

All wells within this area are being sampled for Gross Alpha and Gross Beta particles. These particles measure the alpha and beta activity in a water supply. In turn, this can provide information regarding naturally occurring radiation (i.e. Radionuclides) that may exist in your water supply. These particles are measured in picocuries per liter (pCi/L) and several have EPA established maximum contaminant levels (MCL's). The standards define the maximum permissible level of a contaminant legally allowed in water taking into account the public health risk, available treatment technology and costs of treatment.

From this point forward, we will require that all new subdivisions and properties within this formation to be tested during yield tests or prior to issuance of the Intern Certificate of Potability (ICOP). In the event that elevated levels are detected, appropriate treatment will be needed to help secure the ICOP and occupancy by the resident(s).

Please call this office at (410) 313-1773 if you have any further questions or concerns.

Sincerely,

Bert Nixon, Assistant Director
Bureau of Environmental Health

Eric Dougherty, MDE, Water Mgmt., Groundwater

Send Report To:

D.R. Horton 301-670-6144
 St 1370 Piccard Drive 410-939-8793
 DHMH - L& Rockville, MD 20850

Division of Environmental Chemistry
RADIATION LABORATORY

201 W. Preston Street, Baltimore, Maryland 21201
 J. Mehsen Joseph, Ph.D., Director

LABORATORY ANALYSIS REQUEST

H0GCTG731510R

Sample Bottle No. A: _____ No. B: _____ Field Blank Bottle No. 1: _____ No. 2: _____

Plant/Site Name: Turnberry Grove Lot 7 8 on F06-72 County: HOWARD

Sample Source: RAW WATER FROM YIELD TEST Location: H0-95-
(well no., lab sink, sample tap, etc.)

County: Plant No.

Collector: GAC Telephone No.: (410) 313-2715

Date Collected: 3/15/06 Time Collected: 10 a.m. _____ p.m.

Nitric Acid Preserved: Yes No Iced: Yes No

Submitters Code: Federal Project: S Field Data: 7 N/A
pH Chlorine

Remarks: _____

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Reported
X	Gross Alpha	4000			
X	Gross Beta	4100			
	Radon-222 Bottle A	4004			
	Radon-222 Bottle B	4004			
	Field Blank #1	4004			
	Field Blank #2	4004			
	Tritium				
	Ra - 226	4020			
	Ra - 228	4030			
	Total Uranium	4006			

Date Received: _____ / _____ / _____

Section Chief: _____

Turnbury Grove
Lot 7 Groveswood CT

Send Report To:

State of Maryland
DHMH - Laboratories Administration
Division of Environmental Chemistry
RADIATION LABORATORY

201 W. Preston Street, Baltimore, Maryland 21201
J. Mehser Joseph, Ph.D., Director

LABORATORY ANALYSIS REQUEST

95-0230

HOGCTG7R

Sample Bottle No. A: _____ No. B: _____ Field Blank Bottle No. 1: _____ No. 2: _____

Plant/Site Name: Turnberry Grove County: HOWARD

Sample Source: Lot 7 well Location: _____
Box F-06-TC (well no., lab sink, sample tap, etc.)

County: 1 3 Plant No.

Collector: gjc Telephone No.: 410 313 1773

Date Collected: 1/1/06 Time Collected: _____ a.m. _____ p.m.

Nitric Acid Preserved: Yes No Iced: Yes No

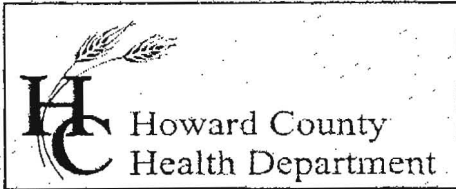
Submitters Code: Federal Project: S Field Data: _____
pH _____ Chlorine _____

Remarks: raw well water collected at yield testing of well (new)

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Reported
✓	Gross Alpha	4000	602080-007-001	6.0 ± 0.9	2/27/06
✓	Gross Beta	4100		8.0 ± 0.8	
	Radon-222 Bottle A	4004			
	Radon-222 Bottle B	4004			
	Field Blank #1	4004			
	Field Blank #2	4004			
	Tritium				
	Ra - 226	4020			
	Ra - 228	4030			
	Total Uranium	4006			

Date Received: _____ / _____ / _____

Section Chief: _____



Bureau of Environmental Health
7178 Columbia Gateway Drive, Columbia, MD 21046
(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

Penny E. Borenstein, M.D., M.P.H., Health Officer

March 14, 2006

D.R. Horton
1370 Piccard Drive
Rockville, MD 20850

RE: Turnbury Grove Subdivision, Lot 78

Well Tag: HO-95-0230

To Whom It May Concern:

A sample was taken from a yield test on February 22, 2006 and submitted to GPL Laboratories to assess the possible presence of **Gross Alpha** and **Gross Beta** in the future well water supply. Gross Alpha and Gross Beta measure the total alpha and beta activity in a water supply. In turn, this can provide information regarding naturally occurring radiation (i.e. Radionuclides) that may exist in your water supply.

Results from this screening revealed a **Gross Alpha** of 6.0 ± 0.9 picocuries/liter (pCi/L); while the **Gross Beta** level was 8.0 ± 0.8 pCi/L. The **Gross Alpha** result was below the maximum contaminant level (MCL) of 15 pCi/L, while the **Gross Beta** was below the MCL of 50 pCi/L.

A copy of the test results is enclosed for your information. Please call this office at 410-313-1773 number if you have any further questions or concerns.

Sincerely,

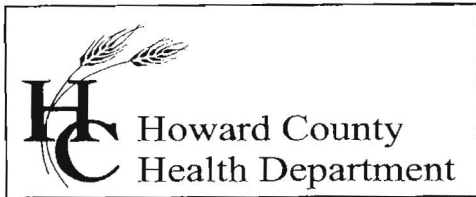
Bert Nixon, Assistant Director
Bureau of Environmental Health

Eric Dougherty, MDE, Water Mgmt., Groundwater
Well & Septic Property File

Analytical Summary Report

Client Name: Howard County Health Department Client Sample ID: TG7R
Sample Date/Time: 2/22/2006 Lab Sample ID: 602080-001-001-1/1
Receipt Date/Time: 2/22/2006 Sample Matrix: WATER
Prepared Date/Time: Analytical Method: ALPHA/BETA BY METHOD 900.0

Isotope	Result	Uncertainty 1 σ	MDA	Q
Gross Alpha	5.9985 pCi/L	± 0.9138 pCi/L	1.967 pCi/L	
Gross Beta	7.9726 pCi/L	± 0.7866 pCi/L	2.1347 pCi/L	



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Penny E. Borenstein, M.D., M.P.H., Health Officer

July 6, 2006

D. R. Horton, Inc.
1370 Picardi Drive
Rockville, Maryland 20850

RE: Water Sample Results
Lot 7 Turnbury Grove
HO - 95 - 0230
New Lot 8 7-06-72

To Whom it May Concern:

During the recent "yield test" of the well serving the future Lot 7 (located on Grovewood Court and Heather Glen Way), a sample was collected for volatile organic compounds (VOC's) on March 15, 2006. This testing was performed to establish a baseline evaluation of the well water supply due to known VOC ground water contamination concerns previously documented (during the 1990's and earlier) in properties nearby this development.

Results from this sampling were free of all tested VOC's to the limit of detection for the test method employed. Similar findings were noted for corresponding Field and Trip Blank samples. With respect to these parameters, the future well water supply is currently safe for all uses.

Additionally, a sample was collected for **Gross Alpha** and **Gross Beta** analysis. These naturally occurring radioactive nuclides have been demonstrated to be present in a certain type of geologic formation known as the Baltimore Gneiss which exists in your area of development within the County.

Unfortunately, no laboratory record reporting of these tests has been located nor identified with this submittal. Consequently, additional testing for these parameters (along with the standard potability tests) will be needed prior to Use and Occupancy. Keep in mind that if the **Gross Alpha** or **Gross Beta** findings are elevated, then testing for **Radium 226/228** will be needed as well.

A copy of the VOC test report is enclosed for your records.

If questions should arise, you may contact Stuart Oster of the Well & Septic Program at (410) 313 - 1771 or me at (410) 313 - 1773.

Sincerely,

Bert Nixon, Assistant Director
Bureau of Environmental Health

Enclosure

State of Maryland
 DHMH - Laboratories Administration
 Division of Environmental Chemistry
TRACE ORGANICS SECTION
 201 W. Preston Street, Baltimore, MD 21201
 John M. DeBoy, Dr. P.H., Director

Certificate of Analysis - Volatiles

Sample Name: 961360 HOGCTG731510S (B) Method: EPA 524.2
 Date Analyzed: 03/23/06

Contaminants	DL*	MCL*	Result*	Contaminants	DL*	MCL*	Result*
TRICHALOMETHANES				UNREGULATED			
Bromodichloromethane	0.5	na	ND	Dichlorodifluoromethane	0.5	na	ND
Bromoform	0.5	na	ND	Chloromethane	0.5	na	ND
Chloroform	0.5	na	ND	Bromomethane	0.5	na	ND
Dibromochloromethane	0.5	na	ND	Chloroethane	0.5	na	ND
TOTAL THMs	-	80	-	Trichlorofluoromethane	0.5	na	ND
REGULATED				1,1-Dichloroethane	0.5	na	ND
Benzene	0.5	5	ND	1,3-Dichlorobenzene	0.5	na	ND
Carbon Tetrachloride	0.5	5	ND	Dibromomethane	0.5	na	ND
Chlorobenzene	0.5	100	ND	1,1-Dichloropropene	0.5	na	ND
1,4-Dichlorobenzene	0.5	75	ND	trans-1,3-Dichloropropene	0.5	na	ND
1,1-Dichloroethene	0.5	7	ND	1,1,2,2-Tetrachloroethane	0.5	na	ND
1,2-Dichloroethane	0.5	5	ND	1,3-Dichloropropane	0.5	na	ND
1,2-Dichlorobenzene	0.5	600	ND	2,2-Dichloropropane	0.5	na	ND
1,2-Dichloropropane	0.5	5	ND	cis-1,3-Dichloropropene	0.5	na	ND
cis-1,2-Dichloroethene	0.5	70	ND	2-Chlorotoluene	0.5	na	ND
trans-1,2-Dichloroethene	0.5	100	ND	4-Chlorotoluene	0.5	na	ND
Ethylbenzene	0.5	700	ND	Bromobenzene	0.5	na	ND
Styrene	0.5	100	ND	1,3,5-Trimethylbenzene	0.5	na	ND
Tetrachloroethene	0.5	5	ND	1,2,4-Trimethylbenzene	0.5	na	ND
Trichloroethene	0.5	5	ND	1,2,3-Trichlorobenzene	0.5	na	ND
1,1,1-Trichloroethane	0.5	200	ND	n-Propylbenzene	0.5	na	ND
Toluene	0.5	1000	ND	n-Butylbenzene	0.5	na	ND
Vinyl Chloride	0.5	2	ND	Naphthalene	0.5	na	ND
o-Xylene	0.5	na	ND	Hexachlorobutadiene	0.5	na	ND
m+p-Xylene	1.0	na	ND	Isopropylbenzene	0.5	na	ND
Total Xylenes	1.5	10000	ND	1,2,3-Trichloropropane	0.5	na	ND
Methylene Chloride	0.5	5	ND	1,2-Dibromo-3-Chloropropane	0.5	na	ND
1,1,2-Trichloroethane	0.5	5	ND	p-Isopropyltoluene	0.5	na	ND
1,2,4-Trichlorobenzene	0.5	70	ND	tert-Butylbenzene	0.5	na	ND
				sec-Butylbenzene	0.5	na	ND
				Bromochloromethane	0.5	na	ND
				1,1,1,2-Tetrachloroethane	0.5	na	ND
				1,2-Dibromoethane	0.5	na	ND
				Methyl-tert-Butyl Ether (MTBE)	0.5	na	ND
				Ethyl-tert-Butyl Ether (ETBE)	0.5	na	ND
				tert-Amyl Methyl Ether (TAME)	0.5	na	ND

*All results are in parts per billion (ppb)
 ND = Less than the detection limit
 na = not applicable
 e = estimated value

Section Chief: Deborah Miller Date Approved: 3/29/06

State of Maryland
 DHMH - Laboratories Administration
 Division of Environmental Chemistry
TRACE ORGANICS SECTION
 201 W. Preston Street, Baltimore, MD 21201
 John M. DeBoy, Dr. P.H., Director

Certificate of Analysis - Volatiles

Sample Name: 961360 FB
 Date Analyzed: 03/23/06

Method: EPA 524.2


<u>Contaminants</u>	<u>DL*</u>	<u>MCL*</u>	<u>Result*</u>	<u>Contaminants</u>	<u>DL*</u>	<u>MCL*</u>	<u>Result*</u>
<u>TRIHALOMETHANES</u>				<u>UNREGULATED</u>			
Bromodichloromethane	0.5	na	ND	Dichlorodifluoromethane	0.5	na	ND
Bromoform	0.5	na	ND	Chloromethane	0.5	na	ND
Chloroform	0.5	na	ND	Bromomethane	0.5	na	ND
Dibromochloromethane	0.5	na	ND	Chloroethane	0.5	na	ND
TOTAL THMs	-	80	-	Trichlorofluoromethane	0.5	na	ND
<u>REGULATED</u>				1,1-Dichloroethane	0.5	na	ND
Benzene	0.5	5	ND	1,3-Dichlorobenzene	0.5	na	ND
Carbon Tetrachloride	0.5	5	ND	Dibromomethane	0.5	na	ND
Chlorobenzene	0.5	100	ND	1,1-Dichloropropene	0.5	na	ND
1,4-Dichlorobenzene	0.5	75	ND	trans-1,3-Dichloropropene	0.5	na	ND
1,1-Dichloroethene	0.5	7	ND	1,1,2,2-Tetrachloroethane	0.5	na	ND
1,2-Dichloroethane	0.5	5	ND	1,3-Dichloropropane	0.5	na	ND
1,2-Dichlorobenzene	0.5	600	ND	2,2-Dichloropropane	0.5	na	ND
1,2-Dichloropropane	0.5	5	ND	cis-1,3-Dichloropropene	0.5	na	ND
cis-1,2-Dichloroethene	0.5	70	ND	2-Chlorotoluene	0.5	na	ND
trans-1,2-Dichloroethene	0.5	100	ND	4-Chlorotoluene	0.5	na	ND
Ethylbenzene	0.5	700	ND	Bromobenzene	0.5	na	ND
Styrene	0.5	100	ND	1,3,5-Trimethylbenzene	0.5	na	ND
Tetrachloroethene	0.5	5	ND	1,2,4-Trimethylbenzene	0.5	na	ND
Trichloroethene	0.5	5	ND	1,2,3-Trichlorobenzene	0.5	na	ND
1,1,1-Trichloroethane	0.5	200	ND	n-Propylbenzene	0.5	na	ND
Toluene	0.5	1000	ND	n-Butylbenzene	0.5	na	ND
Vinyl Chloride	0.5	2	ND	Naphthalene	0.5	na	ND
o-Xylene	0.5	na	ND	Hexachlorobutadiene	0.5	na	ND
m+p-Xylene	1.0	na	ND	Isopropylbenzene	0.5	na	ND
Total Xylenes	1.5	10000	ND	1,2,3-Trichloropropane	0.5	na	ND
Methylene Chloride	0.5	5	ND	1,2-Dibromo-3-Chloropropane	0.5	na	ND
1,1,2-Trichloroethane	0.5	5	ND	p-Isopropyltoluene	0.5	na	ND
1,2,4-Trichlorobenzene	0.5	70	ND	tert-Butylbenzene	0.5	na	ND
				sec-Butylbenzene	0.5	na	ND
				Bromochloromethane	0.5	na	ND
				1,1,1,2-Tetrachloroethane	0.5	na	ND
				1,2-Dibromoethane	0.5	na	ND
				Methyl-tert-Butyl Ether (MTBE)	0.5	na	ND
				Ethyl-tert-Butyl Ether (ETBE)	0.5	na	ND
				tert-Amyl Methyl Ether (TAME)	0.5	na	ND

*All results are in parts per billion (ppb)

ND = Less than the detection limit

na = not applicable

e = estimated value

Section Chief: 

Date Approved: 

State of Maryland
 DHMH - Laboratories Administration
 Division of Environmental Chemistry
TRACE ORGANICS SECTION
 201 W. Preston Street, Baltimore, MD 21201
 John M. DeBoy, Dr. P.H., Director

Certificate of Analysis - Volatiles

Sample Name: 961360 TB
 Date Analyzed: 03/23/06

Method: EPA 524.2

<u>Contaminants</u>	<u>DL*</u>	<u>MCL*</u>	<u>Result*</u>	<u>Contaminants</u>	<u>DL*</u>	<u>MCL*</u>	<u>Result*</u>
TRICHALOMETHANES				UNREGULATED			
Bromodichloromethane	0.5	na	ND	Dichlorodifluoromethane	0.5	na	ND
Bromoform	0.5	na	ND	Chloromethane	0.5	na	ND
Chloroform	0.5	na	ND	Bromomethane	0.5	na	ND
Dibromochloromethane	0.5	na	ND	Chloroethane	0.5	na	ND
TOTAL THMs	-	80	-	Trichlorofluoromethane	0.5	na	ND
REGULATED				1,1-Dichloroethane	0.5	na	ND
Benzene	0.5	5	ND	1,3-Dichlorobenzene	0.5	na	ND
Carbon Tetrachloride	0.5	5	ND	Dibromomethane	0.5	na	ND
Chlorobenzene	0.5	100	ND	1,1-Dichloropropene	0.5	na	ND
1,4-Dichlorobenzene	0.5	75	ND	trans-1,3-Dichloropropene	0.5	na	ND
1,1-Dichloroethene	0.5	7	ND	1,1,2,2-Tetrachloroethane	0.5	na	ND
1,2-Dichloroethane	0.5	5	ND	1,3-Dichloropropane	0.5	na	ND
1,2-Dichlorobenzene	0.5	600	ND	2,2-Dichloropropane	0.5	na	ND
1,2-Dichloropropane	0.5	5	ND	cis-1,3-Dichloropropene	0.5	na	ND
cis-1,2-Dichloroethene	0.5	70	ND	2-Chlorotoluene	0.5	na	ND
trans-1,2-Dichloroethene	0.5	100	ND	4-Chlorotoluene	0.5	na	ND
Ethylbenzene	0.5	700	ND	Bromobenzene	0.5	na	ND
Styrene	0.5	100	ND	1,3,5-Trimethylbenzene	0.5	na	ND
Tetrachloroethene	0.5	5	ND	1,2,4-Trimethylbenzene	0.5	na	ND
Trichloroethene	0.5	5	ND	1,2,3-Trichlorobenzene	0.5	na	ND
1,1,1-Trichloroethane	0.5	200	ND	n-Propylbenzene	0.5	na	ND
Toluene	0.5	1000	ND	n-Butylbenzene	0.5	na	ND
Vinyl Chloride	0.5	2	ND	Naphthalene	0.5	na	ND
o-Xylene	0.5	na	ND	Hexachlorobutadiene	0.5	na	ND
m+p-Xylene	1.0	na	ND	Isopropylbenzene	0.5	na	ND
Total Xylenes	1.5	10000	ND	1,2,3-Trichloropropane	0.5	na	ND
Methylene Chloride	0.5	5	ND	1,2-Dibromo-3-Chloropropane	0.5	na	ND
1,1,2-Trichloroethane	0.5	5	ND	p-Isopropyltoluene	0.5	na	ND
1,2,4-Trichlorobenzene	0.5	70	ND	tert-Butylbenzene	0.5	na	ND
				sec-Butylbenzene	0.5	na	ND
				Bromochloromethane	0.5	na	ND
				1,1,1,2-Tetrachloroethane	0.5	na	ND
				1,2-Dibromoethane	0.5	na	ND
				Methyl-tert-Butyl Ether (MTBE)	0.5	na	ND
				Ethyl-tert-Butyl Ether (ETBE)	0.5	na	ND
				tert-Amyl Methyl Ether (TAME)	0.5	na	ND

*All results are in parts per billion (ppb)

ND = Less than the detection limit

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e = estimated value

Section Chief:

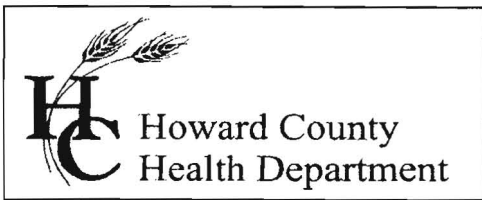
Deborah A. Miller

Date Approved:

3/29/06

Phone: (410) 767-5896

Fax: (410) 225-9318



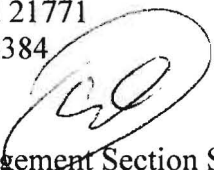
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(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

Penny E. Borenstein, M.D., M.P.H., Health Officer

February 8, 2006

MEMORANDUM

TO: Joseph L. Mayne Well Drilling
5512 Ridge Road
Mt. Airy, Maryland 21771
Faxed to 301-829-5384

FROM: Stuart Oster, R.S. 
Groundwater Management Section Supervisor
Well and Septic Program

RE: File Number: P-05-013
Title: Turnbery Grove

The Health Department requires that all the wells in this subdivision be tested for radium and V.O.C.'s (Volatile Organic Contaminants). The optimum time to sample would be when the yield test is being completed. When contacting this office about the yield test, please mention that these water test need to be collected. Also, attached is a letter dated November 21, 2005 from Bert Nixon further explaining the radium testing.

Not tested for VOC
Radium tested 8/22/06
8:30 AM

Cc: D. R. Horton, Inc.
File